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10/18/96

**KERR-McGEE CHEMICAL CORPORATION**

321 E. Grand Ave. Chicago, IL 60611  
Phone: (312) 464-9019 Fax: (312) 464-9547

EPA Region 5 Records Ctr.



225809

FLKE 004

October 18, 1996

**VIA HAND DELIVERY**

Ms. Verneta Simon  
On-Scene Coordinator  
U.S. EPA Region V  
Emergency Response Branch  
77 West Jackson Blvd.  
Chicago, IL 60604

Re: Revision to the Work Order for Property Excavation and Restoration for Lindsay Light II  
Site at 316 E. Illinois St. Property owned by the City of Chicago.

Dear Ms. Simon:

Kerr-McGee has modified the Work Order for the above referenced project per your comments of  
October 18, 1996.

If there are any questions concerning this Work Order, please contact me at (312) 464-9019.

Sincerely,  
KERR-McGEE CHEMICAL CORPORATION

*Bernie Bono*

Bernie Bono, P.E.  
Field Team Leader

Enclosure

cc: J. Dan White  
Dave Jedlicka  
File: LL II - 1.4-1

**KERR-McGEE CHEMICAL CORPORATION**  
**Lindsay Light II**  
**CHICAGO, ILLINOIS**

**PROPERTY EXCAVATION AND RESTORATION WORK ORDER**

**Property Owner:**       The City of Chicago

**Property Location:**   321 E. Grand, Chicago, IL 60611  
                              ~ 150 lin. ft of sidewalk along Illinois St.  
                              ~ 50 lin. ft of sidewalk along Grand Avenue

**I. INTRODUCTION**

This Work Order describes the site preparation, excavation, and restoration work to be performed by Kerr-McGee Chemical Corporation (Kerr-McGee) to remove thorium contaminated soil underneath the sidewalk and pavement adjacent to the existing parking lot located within the city block bounded by E. Grand Avenue, N. McClurg Court, E. Illinois Street and N. Columbus Drive in the Streeterville District of Chicago, Illinois. Removal of thorium contaminated soil located under the parking lot owned by The Chicago Dock & Canal Trust is discussed in a separate Work Order. Through the permit issued by the City of Chicago, The Chicago Dock & Canal Trust has already received the City's approval for this Work.

The majority of construction work is scheduled to be complete during the 1996 construction season. Total elapsed time to complete all construction work on the City's right-of-way, including approvals and verifications by governmental agencies as well as tree replacement in the spring, is estimated to be approximately 210 calendar days. All work will be done in accordance with the unilateral Administrative Order and the Scoping and Planning Documents approved by the United States Environmental Protection Agency (U.S. EPA).

Section II of this Work Order describes the location of the contaminated material, and the location of surface features, utilities, trees, curbs etc., that need to be addressed as part of the property remediation. The location of these items are shown on Drawing LLII - WO.

Section III of this Work Order describes site preparation, excavation, and restoration activities required to remediate this property. The site preparation subsection describes the type and sequencing of the work to prepare the property for the excavation of contaminated soils. The excavation subsection describes the type and sequencing of the excavation work. The restoration subsection describes the type and sequencing of the restoration work. Public access to the parking lot will be restricted during excavation and backfill operations. Pedestrian and vehicular traffic will be maintained at all times.

Section IV of this Work Order describes the City of Chicago's final inspection process which will be completed at the end of construction.

## **II. DESCRIPTION OF THE PROPERTY.**

### **A. Location of Soil Containing Radioactive Materials Above Clean-up (Action) Levels.**

The known extent of the contamination on the City of Chicago right-of-way is shown on Drawing LLII - WO. The depth of contamination varies from approximately 0.5 to 7.5 feet deep. The horizontal and vertical limits of the excavation may be adjusted if more or less contaminated materials are discovered during the verification sampling process. The City of Chicago will be notified if the limits of excavation need to be extended and any other changes in construction which result from an increase in excavation limits.

### **B. Description of Property Items Potentially Affected by Remediation Work.**

#### **1. Inventory of Property Items**

Drawing LLII - WO of this Work Order includes an inventory of the items located on the City of Chicago right-of-way which will or may be affected by the removal of contaminated soils. Affected items will be restored as near as possible to their original condition.

#### **2. Utilities**

Drawing LLII - WO depicts the locations of known above ground and buried utilities. The locations of buried utilities will be cross-checked with the locations marked in the field by the Chicago Utility Alert Network. An attempt will be made to locate underground utilities in excavation areas using an electromagnetic field detector from the surface. Potential hazards such as overhead electrical or phone lines near the areas of excavation and buried electric lines near the surface will be noted and discussed with the excavation and restoration crews. Buried lines will be marked with paint, stakes or pin flags.

If encountered, contaminated soils which are located near buried utility lines will be hand excavated in order to prevent damaging the lines and ensure the safety of workers and property owners. In general, buried utilities and sewers of all types will remain in place and be protected during construction.

## **III. DESCRIPTION OF THE WORK**

### **A. Construction Schedule.**

The majority of construction work is scheduled to be completed during the 1996 construction season. Total elapsed time to complete all construction work on the property, including approvals and verifications by governmental agencies as well as tree replacement in the spring, is estimated to be approximately 210 calendar days. Verification soil sampling and any additional excavation work required to remove all contaminated material is included in this time frame. The estimated time frame

may be extended as a result of a significant increase in the amount of contaminated materials which must be removed, delays in verification sampling and testing, rain delays, etc..

Kerr-McGee will notify the City of Chicago of any delays in this schedule that may be encountered. Concrete sidewalk, curb and gutter, and pavement will be replaced after backfilling is completed.

#### **B. Site Preparation Activities.**

The existing elevation and/or location of the street, curbs, driveways and other property improvements which are to be removed will be surveyed prior to initiating any excavation or selective demolition activities. This survey information will be used to reconstruct property improvements back to their original locations and elevations. Kerr-McGee will photograph and/or video tape the property to document the existing condition of structures and other property improvements. These photos and videos will be stored in the project file and are available for the City of Chicago's inspection.

Temporary chain-link fencing will be placed at the outer limits of the work area to clearly mark and establish the construction zone. The chain-link fence will have signs with the following message:

"This Parking Lot is Undergoing Environmental Remediation  
We Sincerely Apologize to our Loyal Customers for this Inconvenience  
For Further Information, Contact The Chicago Dock & Canal Trust at (312) 609-1800. Your  
Call Will Be Returned During Regular Business Hours, So Please Leave Your Name and  
Telephone Number after the Message"

Four air monitoring stations will be established at the Site before excavation begins. Air monitoring locations will be located near the center of each quarter of the Site. Air samplers will be used to collect ambient air particulates on filters for subsequent counting.

Selective demolition work and concrete removal will be performed as shown on Drawing LLII - WO. Construction means and methods will be selected which minimize the potential of damage to existing property improvements which are not being removed as part of construction activities. Selective demolition debris or removed concrete which have visible soil deposits on them will be radiologically surveyed to determine if it is appropriate to dispose of the debris at a commercial non-hazardous landfill or transport to Envirocare of Utah. The commercial non-hazardous landfill will be determined at a later date. Appropriate construction and decontamination techniques will be used to minimize the quantity of material which must be shipped to Utah.

Pedestrian and vehicular traffic will be maintained at all times. Traffic control components will be utilized to safely guide and protect motorists, pedestrians, and workers in the traffic control zone. Traffic control components will comply with Section 5 of the City of Chicago Department of Transportation Standard Specifications for Openings in the Public Way.

### **C. Excavation Activities.**

Within the construction site, all exclusion zones shall be clearly marked with magenta (purple) and yellow rope fencing.

Various locations along the inside of the sidewalk will be utilized for loading containers and decontaminating equipment during excavation of contaminated soil. These load out areas will be located on the parking lot adjacent to the excavation areas. In order to promote the timely and cost effective removal of contaminated soil, the exact location of load out areas and decontamination areas within the parking lot boundaries will be established and adjusted based upon construction conditions in the field.

#### **1. Limits of Excavation.**

Paint will be used to mark excavation areas and to show the estimated depth of excavation. After the contamination has been excavated to the indicated depth, a surface gamma scan will verify if additional excavation work is needed to remove any remaining contamination. Additional excavation will continue as necessary. The process of excavating and scanning will continue until all contamination above the clean-up level is removed.

#### **2. Removal of Clean Overburden**

Clean soil and concrete overlying thorium contaminated soil will be excavated, segregated, stockpiled, sampled, and if practical, reused for backfill.

#### **3. Excavation Philosophy**

Excavation of contaminated soils beneath the sidewalks will be conducted in a manner that minimizes project and public radiological exposures by selection of appropriate excavation equipment, diligent use of dust control practices and adherence to spatial excavation controls in the horizontal (x and y) and vertical (z) planes. In order to maximize soil removal productivity yet maintain the necessary precision to differentiate between contaminated and clean earthen materials, the contractor will utilize a variety of excavation equipment. The suite of equipment will potentially include a track hoe, common back hoe, and front end loader.

#### **4. Excavation Sequence**

Excavating shall be performed in accordance with Sections 1 and 2 of the City of Chicago Department of Transportation Standard Specifications for Openings in the Public Way. Remediation efforts within the Illinois Street sidewalk right-of-way will be excavated from east to west to allow the excavator to maintain its tracks on stable, uncontaminated concrete. Excavation within the

Illinois Street sidewalk right-of-way will be performed in conjunction with the excavation of Areas 3, 6 and 7 after the temporary pedestrian bypass has been established on Illinois Street.

Excavation within the Grand Avenue sidewalk right-of-way will be performed in conjunction with the excavation of Area 12 after the temporary pedestrian bypass has been established on Grand Avenue.

This approach will ensure safe operation of the excavator, as well as minimize the spread of contamination and repeated time-consuming decontamination efforts. The excavation process will include staging a lined, and bibbed container alongside the excavator, immediately outside the exclusion zone. The excavator will swing its load over the exclusion zone rope, placing the material in the awaiting storage/shipping container. The container bib will be situated such that all contaminated soil material will either be deposited into the waiting container, or be deflected back into the exclusion zone. As full waste containers are rolled forward for weighing and health physics assessment, an empty, lined container will be positioned alongside the exclusion zone.

A variety of large and small construction equipment will be used during excavation activities. In order to promote the timely and cost effective removal of contaminated soils, the excavation sequence may be adjusted based upon construction conditions in the field.

During all excavation and container loading activities, measures will be taken to control dust. It is anticipated that wetting materials about to be disturbed with water will be sufficient to control dust.

Following the sampling of excavated areas and verification that all contamination has been removed, magenta and yellow rope marking the exclusion zones will be removed. The temporary chain-link fencing will be left in place until the removal action is completed.

#### **D. Restoration Activities.**

Backfilling shall be performed in accordance with Section 3 of the City of Chicago Department of Transportation Standard Specifications for Openings in the Public Way. Sidewalk, driveway pavement, curb and gutter replacement shall be performed in accordance with Section 4 of the City of Chicago Department of Transportation Standard Specifications for Openings in the Public Way.

Trees removed as a result of the excavation will be replaced in the spring with appropriate nursery stock in accordance with the City of Chicago Department of Forestry.

#### **E. Temporary Facilities.**

The following temporary facilities for the support of construction activities will be provided by Kerr-McGee as long as necessary and removed prior to completion of work on the property:

1. Temporary chain-link fencing
2. A load out and decontamination station.

4. Electrical power supplies
5. Temporary sanitary facilities (portable chemical toilet)
6. Temporary soil counting lab
7. Construction trailers
8. Traffic control components

#### **F. Use of the Property During Excavation and Restoration**

Driveways across the sidewalk and portions of the Illinois St. and Grand Ave. Sidewalks will be closed to the public until all the excavations are backfilled.

During construction work activities, access to all contaminated areas will be limited to authorized personnel during excavation and verification operations. Once the areas have been excavated and backfilled with clean soil, the temporary fencing will be removed and sidewalk and driveway access will be restored.

Pedestrian and vehicular traffic will be maintained at all times in accordance with the City of Chicago Department of Transportation Standard Specifications for Openings in the Public Way.

Site security will be directed by Kerr-McGee with guards supplied by The Chicago Dock & Canal Trust to maintain site security 24 hours per day.

#### **G. Emergency Telephone Numbers.**

- |                              |  |
|------------------------------|--|
| 1. Bernie Bono, Kerr McGee   | WK: (312) 464-9019 Home: (847) 823-1750  |
| 2. Dave Jedlicka, Kerr-McGee | WK: (708) 293-6332 Pager: (708) 276-8558 |
| 3. Tammy Walsh, Chicago Dock | WK: (312) 467-1870                       |
| 4. Site Security             | (312) 559-9419                           |
| 5. Emergency                 | 911                                      |

#### **IV. PROPERTY OWNER ACCEPTANCE OF THE WORK.**

Kerr-McGee will work with the City of Chicago during construction to ensure that the work complies with the above Work Order. At completion of property restoration, the City's agent may inspect the property and inform Kerr-McGee of their acceptance of the work by refunding the \$5,250 deposit. Refunding the deposit shall constitute the City's acceptance of the restoration work.

In the event Kerr-McGee and the property owner can not reach an agreement on whether the property has been properly restored, the U.S. EPA On-Scene Coordinator shall resolve the dispute.